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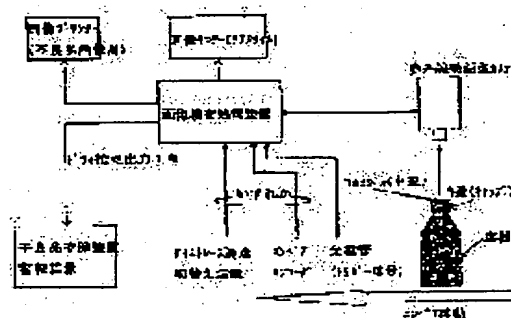
(54) NONCONTACT INSPECTION METHOD FOR FREQUENCY ALUMINUM SEAL

(57)Abstract:

PROBLEM TO BE SOLVED: To detect a defect of a seal conveniently by picking up the image of the upper surface of a thermally fused outer cover by means of an infrared thermal image camera and making a decision whether a seal is defective or not based on the shape of the image and the analysis of data.

SOLUTION: A synthetic resin molding member laminated on the lower surface is fused by heat generated an aluminum seal through high frequency oscillation to seal the doughnut type upper edge at the mouth of a container. The generated heat is

transmitted the rear top surface of an outer cover to the outer upper surface. The heat distribution is picked up from above by means of an infrared thermal image camera and processed by an image inspection processor to determine the temperature distribution on the outer upper surface of the outer cover which is then displayed in color or subjected to histogram analysis and compared with that of a product sealed well. A decision is made that the seal is acceptable if they match each other otherwise a decision is made that the seal is rejectable and an abnormal value is detected. According to the method, 100% inspection of fusion seal can be made conveniently and easily and quality control can be performed quite efficiently and effectively.



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